

5. Measuring method, **characterized** in a generation of transients by applying electrical pulses to electrodes in contact with the substance to be investigated, the transients before the later stabilized conditions are registered, with at least one measured value after the peak of the initial pulse but before the response has fallen below 90% or preferably 95% of the peak value, one value before the peak, and the peak value and the obtained measured values are then evaluated by multivariate methods.

Sub A2
6. Method according to claim any of the preceding claims, **characterized in** that for each pulse is one of the entities: current, voltage, energy, conductivity or effect controlled while one of the others entities is registered, for example in the case of current being measured voltage or conductivity may be controlled, whereas in the case of the effect being controlled either the current or the voltage may be registered.

SUB A2
7. Method according to any of the preceding claims, **characterized in** subsequent electric pulses being varied for instance to their current and/or voltage values, to their shape, or in the relation between pulse and pause between the pulses, or the frequency, alternatively the pulses may be superimposed on a rising or falling current or voltage curve.

8. Method according to preceding claim 7, **characterized in** the variation of at least two parameters one electric and one other, providing a two dimensional response pattern.

Sub A3
9. Method according to any of the preceding claims, **characterized in** the use of a number of different measure electrodes of for instance different materials or coated by different materials, or modified in different ways.

Sub A3
10. Method according to any of the preceding claims, **characterized in** the use of a number of different measure electrodes placed so in relation to each other that the electrodes influence each other or that their measuring influence each others result.

Sub A3
11. Method according to any of the preceding claims, **characterized in** the measuring principle being voltametric, potentiometric or conductometric, and of one, two or three electrode type.

Sub A3
12. Method according to claims any of the preceding claims, **characterized in** a cyclic subsequent switching of a common current or voltage generator and/or a registration device between different measuring electrodes resulting in ample time between the pulses to each electrode to allow the influence of the previous pulse on the liquid to have ceased before next pulse arrives to the same electrode.

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Sub 13 13. Method according to any of the previous claims, **characterized in** a variation of the pulse frequency.

Sub 14 14. Method according to any of the previous claims, **characterized in** a variation of the pulse amplitude.

Sub 15 15. Method according to any of the previous claims, **characterized in** the transients being treated with suitable shape enhancing or developing techniques, as for instance derivation, integration, proportionality, etc. before the evaluation by means of multivariate recognition methods or other similar classification methods.

Sub 16 16. Method according to any of the previous claims, **characterized in** a great variation of the pulse frequency, for instance 10 Hz - 100kHz.

17. Electronic tongue, **characterized in** comprising a pulse generator coupled to electrodes for the contact with the substance that is to be investigated, a registration device for registering the transients obtained at the applying of the pulses and a computer for evaluation of the transients with multivariate pattern recognition methods.

18. Electronic tongue, **characterized in** the computer being coupled also to control the pulses to their size shape or frequency etc. or to interact between the pulse generated and the measured response.

19. Measuring or tasting tongue or cell **characterized in** comprising a pump housing in which a pump element is rotatable to cause a flow of the test specimen through the housing, the rotor being provided with a brush or rubber seal that sweeps clean electrodes arranged in the housing wall.

20. Measuring testing cell or tongue according to claim 19, **characterized in** a constant speed during testing.

AMENDED SHEET